

DEPARTMENT OF COMMERCE
BUREAU OF STANDARDS

COMMERCIAL STANDARDS MONTHLY

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S. F. Tillman, Editor.

No. 51.

IMPORTANT NOTICE

Last month's Bulletin carried the announcement that, commencing with the July issue, this publication is to be printed as a magazine. In its expanded form it will contain:-

1. Current status of projects of the Commercial Standardization Group, which includes the Divisions of Simplified Practice, Trade Standards, Building and Housing, and Specifications, and the American Marine Standards Committee.
2. Commercial aspects and applications of standardization activities of the Research and Testing Divisions of the Bureau.
3. Standardization work of the Department of Commerce and of other Federal establishments, which appears to be of interest to Commercial enterprises. Particular notice will be given to the work of the Chief Coordinator and the Federal Specifications Board.
4. Important achievements of National Standardizing Bodies such as the American Standards Association, American Society for Testing Materials, Society of Automotive Engineers, American Railway Association, etc.
5. Outstanding examples of waste-elimination effected by trade associations and individual companies.
6. Abstracts of articles, reports, etc., which bear on national or regional standardization.
7. Notice of foreign standardization work likely to be of interest to American Business men particularly to importers and exporters.
8. Miscellaneous, e.g.; notice of new publications and announcements of new plans, programs, etc., of the Bureau of Standards in its effort to assist American business.

An arrangement has been made with the Government Printing Office whereby each of our present readers will receive a complimentary copy of the July issue. It is suggested, however, that in order to make certain that you will not miss any of the new issues, you fill in and mail the subscription blank appearing on the last page of this bulletin, together with \$1.00, to the Superintendent of Documents, Government Printing Office, Washington, D. C. The rate for foreign subscription is \$1.25.

G. K. BURGESS,
Director.

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SIMPLIFIED PRACTICE

Edwin W. Ely

Address all inquiries on matters pertaining to Simplified Practice to Edwin W. Ely, Division of Simplified Practice, Bureau of Standards, Washington, D. C.

1. NEWS OF DIVISION'S ACTIVITIES --

Hospital Plumbing Fixtures: At a general conference of plumbing fixture manufacturers, hospital officials, architects and other interests, on May 22nd at the Department of Commerce, a Simplified Practice Recommendation was adopted. The program establishes a simplified list of dimensions for the several types of plumbing fixtures, used in general hospital installations. Prior to publication, this recommendation will be referred to all concerned, for signed acceptance.

Tight Cooperage (Barrels & Kegs): A general conference of manufacturers, distributors and users of tight barrels and kegs, meeting in St. Louis, Missouri, on May 16th approved a Simplified Practice Recommendation covering length and thickness of staves; diameter and thickness of heads; bilge circumference; and distance from croze to finished end of stave. Subject to the signed acceptance of all interests, this program will become effective July 1, 1930.

Buffing Wheels: The Simplified Practice Committee of the buffing wheel industry, in reviewing its preliminary findings, at a meeting in New York, N. Y. on May 10, expressed the conviction that the present overdiversification in sizes of buffs, - particularly the diameters, - is a decided waste. It is now the purpose of that Committee to learn the views of the consumers, in anticipation of formulating a simplified list of sizes for the review of a general conference of all interests.

Hard Rubber Grommets: At a preliminary conference of representatives of manufacturers of hard rubber products held at the Bureau of Standards on May 21, the simplification of grommets was discussed. It is the belief of the manufacturers that this commodity could be handled much more easily if there were standard sizes. A Simplified Practice Committee will be appointed to conduct a variety survey and from the data thus obtained work out a tentative recommendation for sizes to be considered at a subsequent general conference of all interests.

Industrial Truck Tires: In May, the Division invited manufacturers, distributors and users of industrial trucks to attend a general conference in Washington, D. C. on June 6th, to act upon recommendations formulated by a Simplified Practice Committee of tire manufacturers. Preliminary approval of the proposed Simplified Practice Recommendation has already been recorded by the Tire and Rim Association of America, Inc., and by a number of producers of industrial trucks and lift trucks.

Industrial Casters: The Division is collecting data on existing practice in this industry, and definite suggestions from manufacturers regarding dimensional standards. It is expected that the first project to be undertaken will be reduction in the present variety of top plate connections, including bolt hole diameters and spacing.

Gravel Sizes: The Board of Directors of the National Sand and Gravel Association met in Toronto, Ont., on May 17, 1929, and voted unanimously in favor of an effort to simplify sizes of screened gravel. Recommendations along this line had already been tentatively formulated by the Standardization Committee of the Association. With the approval of the Board of Directors, the Standardization Committee will proceed at once to circularize the an-

tire membership of the Association, also non-member firms in the industry, to secure approval of the recommended standards. When such approval has been received from firms representing at least 80% of the volume of production, the Standardization Committee will be authorized to request the Division of Simplified Practice to call a general conference of producers, distributors and users of gravel, to act upon the recommendations.

Refrigerators; Ice Compartment Sizes: The National Refrigerator Manufacturers' Association has prepared a tentative list of dimensions for ice compartment door openings and horizontal depths, which will shortly be presented to the entire membership, and to non-member manufacturers, for approval. The simplified list provides for standard door and depth dimensions for refrigerators of five standard capacities; 25, 50, 75, 100, and 150 pounds. These standard capacities exactly correspond to the standard weights of ice cakes already included in Simplified Practice Recommendation No. 96. Dimensions suggested for compartment doors and depths in no case exceed the maximum dimensions for each weight, as stated in S. P. R. 96.

Track Tools: The manufacturers of track tools are now preparing a new simplified list of sizes and varieties, and expect to present the list to the American Railway Engineering Association for approval in the near future. It is expected that as soon as such approval has been received, a general conference of manufacturers, distributors and users will be held under the auspices of the Division of Simplified Practice, at which the recommendation will be acted upon.

Safes: A representative of the Division of Simplified Practice addressed the members of the National Association of Safe Manufacturers in Cleveland, Ohio, on May 10. After the talk, a discussion was held as to the possibilities of simplifying inside dimensions of safes. Initial steps were taken looking toward the drafting of a tentative simplified practice recommendation.

Can Sizes: A report on the progress made in a survey on can sizes was presented to the spring meeting of the Board of Directors of the National Cannery Association in Washington on May 23. Considerable data was obtained in the survey conducted in 1928, and this information has been supplemented by figures furnished by the manufacturers of cans.

Septic Tanks: The simplified practice committee of the septic tank industry has completed its variety survey, and has requested the tank manufacturers to examine the final report before using it as the basis for a simplified practice recommendation.

Color for General School Furniture & School Laboratory Furniture: After a preliminary conference on April 12 in Chicago, Ill. to consider the simplification of colors for school seating, the National School Supply Association requested the Division to cooperate with them also in the simplification of color for school furniture. In accordance with this request a representative of the Division of Simplified Practice went with manufacturers of general school furniture and laboratory equipment in Chicago on May 17th and 18th, and a tentative recommendation in harmony with the color adopted by the Seating Group was approved. At these meetings it was decided to hold a general conference of all interests on June 28th in Chicago to take final action on the proposals adopted at the preliminary meetings.

Shipping Tags (Paper): A summary report of a general conference on the subject of shipping tags, held in New York, N. Y. on April 26th, has been mailed to all interests for their consideration and signed acceptance.

Lead Pencils: The accepters of Simplified Practice Recommendation No. 65, Lead Pencils, have been notified that the program is now in effect. The Chairman of the Standing Committee of the lead pencil industry, having reviewed the acceptance list, has stated that the list includes the names of those who handle at least 80 per cent of the total volume made in the United States.

Textile Machinery Parts: On June 5, 1929 the manufacturers of textile machinery parts such as spindles, bobbins, etc. will convene in New York, N. Y. to consider the practicability of applying the principles of simplified practice to their products.

Dental Hypodermic Needles: A meeting of the Simplified Practice Committee of dental needle manufacturers was held in New York May 20th to consider suggestions received from the manufacturers, in connection with the tentative schedule submitted to them after the meeting of January 29th, at this meeting, plans were completed for holding the general conference on this program, at White Sulphur Springs, W. Va., on June 17, 1929.

Soft Fibre Cordage: The Simplified Practice Committee of the industry is now preparing a digest of the variety survey which has been completed. This digest will serve as agenda for a general conference of all interests, which will be held on or about June 25th, in New York.

Shoe Goring: Work on the survey of current variety in this commodity is progressing. A meeting of the Simplified Practice Committee has been scheduled for June 6, in New York.

Earphone Batteries: A preliminary meeting of manufacturers of earphone batteries will be held in New York City on May 21st, to appoint a simplified practice committee, and to draw up a tentative schedule for this commodity. The basis for discussion will be a suggestion received from a representative manufacturer of batteries.

Packaging of Flashlight Batteries: The National Wholesale Druggists' Association believes that there is a real opportunity for benefits accruing from the simplification of package sizes. Representative producers of flashlight batteries have been invited to consider this proposal.

Malleable Foundry Refractories: Simplified Practice Recommendation No. 79, which originally became effective on February 1, 1928, has been reaffirmed without change by the industry. According to a survey made by the Division, the degree of adherence that is being accorded this program is 64.31%.

Tissue Paper: Simplified Practice Recommendation No. 46, as at present constituted, is producing satisfactory results. It has been reaffirmed by the standing committee of the industry, said committee having been advised that the indicated support is 76.5 per cent. This schedule was first promulgated in 1926.

Towel Sizes: It is the belief of the standing committee for the Tissue Paper Recommendation that it is desirable to supplement that program with a simplification of towel sizes. A variety survey will be started by the industry and later submitted to all interested for their approval and acceptance.

Paving Brick: The Standing Committee of the industry has revised Simplified Practice Recommendation No. 1, to include a type of brick which has been discontinued in 1925, but which has since come into demand. This type represented 14.5% of the shipments made in 1928. No other changes in the program were made. The adherence to this recommendation has been found to be 70.1 per cent.

White Glazed Tile: Originally effective January 1, 1927, Simplified Practice Recommendation No. 61, has been revised by the Standing Committee of the industry. All interests have been requested to consider the following changes in nomenclature:

"Selected" to be known as "Firsts"

"Selected")
) To be known as "Seconds."
"Commercial")

If this proposal is acceptable to the trade, other minor changes will be suggested. The program in its present form has been accorded an adherence of 86.6 per cent by the industry.

Steel Barrels and Drums: Simplified Practice Recommendation No. 20 in its present form enjoyed an adherence of 90.83 per cent in 1929, which is an increase over the previous year. The program, as originally formulated in 1924, provided 9 inch and 15 inch openings for the bolted cover light drums and the friction cover light drums. The standing committee of the industry has now added a 12-inch opening, otherwise reaffirming the recommendation.

Roofing Ternes: The manufacturers of roofing ternes met in Detroit, Michigan, on May 17th, to discuss in detail the facts that had been brought out by two surveys, which had been concluded by the industry and by the Department of Commerce, respectively. This conference was made possible by the occurrence of a meeting of the Metal Branch of the National Hardware Association of the United States in Detroit. The object of the two surveys aforementioned was to secure data upon which to base a recommendation for further eliminations of sizes in Simplified Practice Recommendation No. 30. The present program confines roofing ternes to seven weights and it was thought that there was a possibility to decrease these to five. However, the production in each weight was of sufficient volume to justify their retention and the Standing Committee of which Mr. T. E. Millsop, Weirton Steel Company, Weirton, West Virginia, is Chairman, reaffirmed the recommendation for the period of another year. The Committee has stated that no departures from the listed weights and thicknesses have been observed.

Staple Vitreous China Plumbing Fixtures: The advisory Committee representing Staple Vitreous China Plumbing Fixtures, Simplified Practice Recommendation No. 52, met with the Division on May 22nd, 1929. A comprehensive survey had been conducted by the Advisory Committee, through the Department of Commerce, to determine the volume of output within the recommended list. Approximately 95 per cent of the volume of the industry returned production figures and it is gratifying to note that the degree of adherence to this recommendation was 87.86% for 1927, and 88.77% for 1928.

Among other matters of import discussed, the Advisory Committee formulated certain recommendations for changes in the present edition of Simplified Practice Recommendation No. 52. Those changes will be considered at the next revision meeting. The only action taken on May 22nd, 1929, was to reaffirm Simplified Practice Recommendation No. 52.

2. HUDSON ADDRESSES COST ACCOUNTANTS.

Because of their control of the budgetary work of an organization, cost accountants are in a strategic position to aid industry in the program to eliminate waste through simplification and standardization.

Ray M. Hudson, the Assistant Director of the Bureau of Standards, in charge of the Commercial Standardization Group of the Bureau last month addressed a meeting of the Milwaukee Chapter of the National Association of Cost Accountants, on the subject "Simplification as a Phase of Waste-Elimination." He pointed out the many advantages which result from applying the principles of simplified practice to eliminate the avoidable industrial waste that exists in both manufacture and selling.

"Simplified Practice," Mr. Hudson said, "means concentration on varieties in common demand," adding that "it has been found true, in many cases that 80 per cent of the year's business comes from 20 per cent of the varieties in which the product is offered for sale. The other four-fifths of the variety which brings in but one-fifth of the year's business is often a prolific source of waste and a reckless absorber or consumer of profits."

In giving examples of what has already been accomplished by industry, through Simplified Practice, Mr. Hudson pointed out that "a retailer of stationery cut out 32 per cent of his items, and reduced the value of his inventory 8 per cent, but also increased his sales volume 20 per cent and his dollar profits 50 per cent. Another company over-hauled its 16,000 forms, made changes in color in 500; discontinued 72, revised 9, and combined 45 to 22 and at the same time cut its letterheads from 161 to 27. This made it possible to buy fewer varieties in larger quantities and get better prices.

"The application of the principles of simplified practice" Mr. Hudson, further pointed out, "should make for increased volume of sales, and lower production costs. The 'keys' to better net profits this year are cooperation, simplification, standardization, waste-elimination, and concentration."

3. REPORTS SIMPLIFICATION PAYS.

In a recent issue of Engineering News-Record, Mr. F. L. Copeland, Vice-President of Bates and Rogers Construction Company, discussed the practical advantages of standardizing. In his article Mr. Copeland, gave the benefit of his more than 30 years' experience as a contractor. The following significant paragraph is indicative of his conclusions:

"The advantages of standardization greatly outweigh the disadvantages. It is particularly impossible to give specific figures which may be safely used, but there is no doubt of actual savings all along the line of equipment, upkeep and operation.

"To illustrate from the experience of our own Construction organization: We find (1) a great reduction in the number of spare parts carried; (2) increased speed of making repairs (a) because of greater availability of replacement parts and (b) because of the close knowledge by the repairmen and operators of the standard machine; (3) increased interchangeability between machine and machine, and between job and job, and (4) increased operator efficiency through constantly working with machines all alike."

4. RESULTS GRATIFYING.

That "most gratifying results are being attained by the metal manufacturers who have adopted the standardization and simplification program" is the opinion of The Metal Craft, as expressed editorially in the April issue of that publication, substantiating the statement by pointing out that "we are constantly in touch with every branch of the metal industry and in reply to questionnaires sent the manufacturers have expressed themselves as being most heartily in favor of this movement because of the remarkable results obtained

5. PLAN TWENTY CONFERENCES.

Twenty Pan American Conferences will be held during the next five years, as a result of various programs undertaken at the Sixth Pan American Conference in Havana, according to an announcement of the Pan American Union. It is stated that the 3rd Pan American Standardization Conference, Havana, Cuba, will probably meet in 1931. The first Standardization Conference was provided for by resolution of the fifth Pan American Conference.

6. LIST OF PUBLICATIONS.

In addition to the recent publications of the Bureau of Standards, as noted in this issue of The Commercial Standards Monthly under the heading of "New Bureau Publications," there is available, a complimentary list of all completed Simplified Practice Recommendations, American Marine Standards; and Commercial Standards. The list, which is revised monthly states the price of each publication, and indicates the reduction in variety that has been effected by each simplification program. Requests for this list should be addressed, The Division of Simplified Practice, Bureau of Standards, Washington, D. C.

MARINE STANDARDS

A. V. Bouillon

All inquiries for information pertaining to the work of the American Marine Standards Committee should be addressed to the Secretary, Mr. A. V. Bouillon, United States Department of Commerce, Washington, D. C.

7. COMMITTEE NEWS.

The American Marine Standards Committee was organized in 1923 primarily to promote simplification of practice and economy in the construction, operation and maintenance of ships and port facilities. One of the special objects of the organization is to establish standards for design, construction, and operation where such are covered by conflicting rules of varying authority and origin, in the hope that all of them will agree to the common standards.

Information regarding the work including a list of the publications issued under the auspices of the committee may be secured by request from the Secretary of the American Marine Standards Committee, Room 713, Department of Commerce, Washington, D. C. Copies of the publications may be purchased at nominal prices from the Superintendent of Documents, Government Printing Office.

Proposed standard uniforms for merchant marine officers. - The subject committee to study and recommend standard specifications on this subject has been organized and progress is being made in preparing a tentative draft of specifications for submittal to the committee. This will include details of standard rank and corps insignias.

Chocks for ships. - The manuscript comprising nine chock standards approved for promulgation has been issued for printing.

Wire ropes for marine uses. - A revised preliminary draft of proposed standard specifications of material and workmanship requirements, types, uses and characteristics, inspection and tests and packing and marking of shipments, including information and instructions for purchasing and an appendix containing general information relative to wire ropes and recommended practice for their storage, handling, use and maintenance has been submitted to the membership and others interested for critical comment before taking steps to promulgate standard specifications.

Hatch beam ends and sockets. - A group of sketches showing suggested types has been submitted to the Technical Committee on "Hull Details" for selective ballot vote.

Molded pipe coverings for temperatures 550 to 1000 F. - A preliminary draft of proposed standard specifications has been submitted jointly to the Subject Committee on "Insulation" and the Technical Committee on "Engineering Details" for ballot vote. This is one of a series of several proposed standard specifications for high-temperature insulation materials.

Technical Committee on "Port Facilities." - This committee which has been in process of formation for some time has been completed and approved by the administrative committee on organization. Its activities will begin in the near future. This committee's functions and personnel are as follows:

(See attached sheet 7-6 - May 14, 1929.)

Australian standards. - Copies of the following publications have been received:

No. B. 3 - 1929 T., Rubber Conveyor and Power Transmission Belting.

No. C. 56 - 1929 T., Electric Cable Soldering Sockets.

PRELIMINARY DRAFT

AMERICAN MARINE STANDARDS COMMITTEE Technical Committee on "Port Facilities."

Functions:

- (a) - To propose standards relative to port facilities and to furnish available data to help in their development.
- (b) - To form or approve subject committees if required to develop such standards.
- (c) - To advise the subject committees when necessary and to review their work.
- (d) - To vote upon proposed standards before their submittal to the membership and others concerned for critical comment and to the Executive Board for Promulgation.

Chairman:

GANT (Charles H.) Manager and Secretary, Board of Harbor Commissioners Wilmington, Delaware. (Chairman of Committee on Standardization of Port Statistics, etc. of the American Association of Port Authorities.)

Members:

ARKILLS, (M. E.) Safety Engineers, Waterfront Employers of Seattle, Seattle, Washington.
BRINTON, (Willard C.) President, Terminal Engineering Company, 17 Battery Place, New York, New York.

HAMMOND, (W. Scott) Engineer Assistant to General Manager, Port of New Orleans, New Orleans, Louisiana.

LESHER, (Robert A.) Executive Engineer, New York-New Jersey Business Associates, Incorporated, One Exchange Place, Jersey City, New Jersey.

MARRON, (F. C.) Port of Seattle Commission, Seattle, Washington.

NICHOLSON, (George F.) Harbor Engineer, Los Angeles Board of Harbor Commissioners, Berth 90, Foot of First Street, San Pedro, California.

SIBERT, (General William L.) Chairman and Chief Engineer, Alabama State Docks Commission, P. O. Box 304, Mobile, Alabama.

SMITH, (C. U.) Harbor Terminal Director, Board of Harbor Commissioners, Milwaukee, Wis.
STOCKER, (Harry E.) Resident Manager, McCormick Steamship Company, c/o Munson Steamship Line, 67 Wall Street, New York, New York.
SULTAN, (Major D. I.) Resident Member of Board of Engineers, on Rivers and Harbors, War Department, Washington, D. C.
THOMPSON, (Carroll R.) Chief Engineer, Department of Wharves, Docks and Ferries, Philadelphia, Pennsylvania.
THOMPSON, (H. M.) Secretary, Hampton Roads Maritime Exchange, Norfolk, Virginia.
WAIT, (J. Russell) General Manager, The Port Utilities Commission, Charleston, S. C.
WHITE, (Frank G.) Chief Engineer, Board of State Harbor Commissioners, Ferry Building, San Francisco, California.
WRIGHT, (George B.) Freight Traffic Manager, Detroit and Cleveland Navigation Company, Detroit, Michigan.

SECRETARY:

A. V. Bouillon, Secretary of the AMSC, Room 713, Commerce Building, Washington, D. C.

COMMERCIAL STANDARDS

I. J. Fairchild

Address all inquiries on the subject of Commercial Standards to Mr. I. J. Fairchild, Commercial Standards Unit, Bureau of Standards, Washington, D. C.

8. COMMERCIAL STANDARDS UNIT.

MASS PRODUCTION AGE.

An article under the above title published in the New York Evening World, also in The Clothing Trade Journal Combined with The Manufacturing Clothier by Dr. Glenn Frank, President of the University of Wisconsin and former Editor of the Century Magazine, states:

"The few instances in which the full significance of standardization, mass production, and mass distribution has been worked out to date are little more than laboratory demonstrations of how the thing might be done and what the social effects might be if it were applied everywhere it is applicable.

"Many superficial critics of our machine age regard mass production as simply a slick scheme for swelling profits on shoddy goods.

"Genuine mass production is, on the contrary, one of the most socially valuable methods modern man-kind has evolved.

"It means specialization on articles that have the greatest

"It means specialization on articles that have the greatest possible value to the greatest number of people.

"Genuine mass production does not follow the whims of the period or fall into step behind the wills-o-the-wisp of capricious fashion.

"It settles down to the business of meeting basic needs.

"It centers its operation upon articles that meet measurably permanent needs and demands.

"It seeks the utmost simplicity of design consistent with essential utility and beauty.

"It declines to use other than durably excellent materials in manufacture.

"It strives to put such good materials and such good workmanship into its articles that their intrinsic merit will be their most effective sales argument.

"It is unwilling to save money through shoddy production and waste money through sales pressure.

"It strives to put its wages high so that many may be able to buy.

"It takes imagination, insight, and ingenuity on the part of the managerial minds of industry to see that logic and the profit in the full run of the philosophy of standardization, mass production, and mass distribution as I have here suggested it."

SELLERS ATTITUDE TOWARD PRESENT DAY COMPETITIVE CONDITIONS.

The monthly bulletin of the Illinois Manufacturers' Costs Association, in a recent issue, prints an article under the above title by Charles U. Abbott, Executive Director, American Institute of Steel Construction, Incorporated, New York, New York, which includes the following:

No one at all conversant with present day selling conditions can question for a moment the need of some remedy that might help to remove the unfair, unethical methods now altogether too prevalent. There is no relief to be obtained from any legal process; therefore, the only possible hope rests in a cooperative moral appeal to the small group who are responsible for the unfair method. The best plan so far known is the setting up of ethical standards and then striving for their general adoption. In the past there has been altogether too much of an attempt to go after the evils rather than the conditions that make the evils.

"It is the little men who take an hour to figure out how they can beat out a competitor; big men are searching for ideas that will build up their business next month."

MEN'S PAJAMAS.

Standard measurements for men's pajamas in the familiar A, B, C, and D, sizes were adopted at a general conference of manufacturers, retailers, and general interests held at the Department of Commerce on May 3rd. The recommended commercial standard covers minimum standard measurements for finished garments in the four sizes. For the pajama coat they cover length, chest, arm-hole, sleeve length, sleeve bottom, and bottom of coat measurements. For the pajama trousers, they cover waist, seat, thigh, rise-front, rise-back, outseam, inseam, knee and bottom. The method of taking each measurement is given in detail.

Copies of the Recommended Commercial Standard for Men's Pajamas, together with a brief report of the general conference, have been submitted to cooperating organizations for

written acceptance. All those who may be interested in this project are urged to write for a copy and to indicate their approval in writing if it is found acceptable.

It is designed to remove the undersizing evil and to eliminate complaints on this score. The manufacturers plan to furnish a removable tag with each garment to carry the manufacturer's certificate that the garment conforms, as regards all measurements, to the commercial standard. The industry plans to make the standard effective, with respect to new production, not later than October 1, 1929.

WALL PAPER.

A general conference of producers, distributors, and consumers was held at the Department of Commerce, Washington, D. C., on May 25th, to consider the establishment of standard grades of quality for wall paper. The proposed standard considered by the conference includes a specification for the raw stock width of paper, width of printed pattern, length of roll in yards, bursting test, color fastness, grounding, moisture resistance and printing. Report of the conference will be available within a few days.

HICKORY GOLF SHAFTS.

June 14, 1929 was definitely fixed for the general conference to consider the adoption of standard grades and sizes of hickory golf shafts. The conference was held at the Deshler-Wallick Hotel, Columbus, Ohio. The proposed standard considered by the conference includes a mechanical method of grading hickory golf shafts as well as standard measurements. It will simplify the replacement of broken shafts and will permit the selection of an identical grade to the one to which the player is accustomed.

STAPLE PORCELAIN (ALL CLAY) PLUMBING FIXTURES.

Commercial Standard, CS4-29, Staple Porcelain (All Clay) Plumbing fixtures is now available in printed form from the Superintendent of Documents, Government Printing Office, at 10 cents per copy. This commercial standard covers grading rules, nomenclature, definitions, dimensional standards, including roughing-in measurements, standard types and sizes of porcelain lavatories, bath tubs, laundry trays, kitchen sinks, shower receptors, slop sinks, and stall urinals. It should prove of material interest to every architect, plumber, master plumber, plumbing jobber, and user who is interested in obtaining maximum quality of this ware as well as standard types which are easily matched or replaced when required.

DIAMOND CORE DRILL FITTINGS.

The manufacturers, drilling contractors, prospectors, railroads, and other users met at a general conference on May 27th at the Palmer House, Chicago, Illinois, to consider the adoption of standard measurements and tolerances for diamond core drill fittings in order that this material may be interchangeable as to size and threaded connections as produced by the various manufacturers. It covers the four regular sizes of casing, casing bits, casing couplings, core barrell bits, drill rods, and rod couplings. Copy of the report will be available for distribution very shortly.

APPROVES OF COMMERCIAL STANDARDS.

The last Quarterly Business meeting of the Southern Builders' Association, held in Atlanta, Georgia, approved the following resolution: "Resolved: By Southern Builders' Supply Association that this Association recognized the advantages of commercial standards and approves the work done by the Bureau of Standards of the Department of Commerce. We urge upon our members the consideration of the recommendations of such Bureau, and that they aid in promoting standards for the commodities in which they deal."

SPECIFICATIONS

A. S. McAllister

Address all inquiries on matters pertaining to Specifications and the Certification and Labeling Plans, to Dr. A. S. McAllister, Division of Specifications, Bureau of Standards, Washington, D. C.

9. BUREAU CERTIFICATION PLAN.

The usefulness of the certification plan of the Bureau of Standards depends upon easy accessibility to lists of willing-to-certify manufacturers, and of laboratories prepared to make check tests of commodities purchased. The Bureau is distributing, through its Division of Specifications, copies of its Letter Circular No. 256, which consists of 14 mimeographed and 116 printed pages. This letter circular records more than 7,500 requests for listing from about 2,000 "willing-to-certify" manufacturers as sources of supply of commodities covered by 248 United States Government Master Specifications.

The first 21,000 copies of the circular are being sent to governmental and institutional buyers, Federal, state, county, and municipal, making purchases out of tax money or its equivalent. The next distribution will be to the officers of trade associations, technical societies, and other interested organizations. Copies of the circular will be sent for their information and for criticisms and comments. To a relatively small number of other persons interested, copies of the circular will be mailed upon specific request.

The following partial tabulation of lists of manufacturers willing to certify that certain of their products conform to the indicated U. S. Government Master Specification, completes the typical examples of the lists that have been appearing in "The Commercial Standards Monthly." Readers of the Monthly interested in the 248 lists of willing-to-certify manufacturers, thus far compiled by the Division of Specifications of the Bureau of Standards, may secure complimentary copies upon request.

10. WILLING-TO-CERTIFY LISTS (Typical Examples).

<u>Specification Number</u>	<u>Commodities Covered</u>	<u>Willing-to-certify Manufacturers</u>
304	Sheets, cotton, bleached (medium and high count sheeting)	11
305	Pillowcases, cotton, bleached	13
334a	Clay, fire	37
335a	Refractories, fire-clay, plastic	35
344	Cheesecloth remnants for wiping purposes	25
367b	Shades, window, rollers, slats, cords and accessories	31
375	Shellac, fiske orange	29
376	Varnish, shellac	81
379	Ink, drawing, colored waterproof	12
393	Unions, malleable iron or steel	11
413a	Padlocks	17
422	Towels, huck (with woven name)	14
427a	Seamless brass tubing	14
466	Belting, conveyor (stitched duck)	10
475b	Oil, linseed, boiled	27

Specification Number	Commodities Covered	Willing-to-certify Manufacturers
476	Chrome yellow (lemon, medium and orange, dry paste in oil, paste in japan)	124
484a	Paper, Manifold, 50% rag, white and colored unglazed	12
485	Gaskets, metallic, encased	8
486	Packing, hard fiber sheet	7
487	Packings, asbestos, wick and rope	18
489	Pipe fittings, cast iron (threaded)	13
497a	Bunting, wool	6
498	Oilcloth, table, white	3
499	Burlap, jute	24
500	Tablecloths, cotton	5
501	Carpets, velvet, plain	8
502	Carpets, and rugs, Axminster	5
503	Carpets and rugs, Wilton	9
535	Pipe fittings, malleable iron (threaded) (150 lb.)	
540	Netting, mosquito (unbleached bobbinet)	5
555b	Shade cloth	18
556	Percale	6
557	Drill	24

11. SCALE SPECIFICATIONS

Bulletin No. 1, of the National Scale Men's Association contains the specification for overhauling and repair of heavy capacity scales, prepared by a special committee of which H. M. Roeser is the chairman. Mr. Roeser is in charge of the Bureau of Standards Master Scale Depot at Chicago. According to this bulletin, recent investigations have shown that the practice of renewing pivots in heavy capacity scales without resealing levers with the new pivots in place, is still being followed occasionally by some scale mechanics. To insure the discontinuance of this dangerous practice, the preparation of specifications covering scale repairs was authorized at the annual meeting of the National Scale Men's Association held in March, 1928. Inquiries concerning this circular should be addressed to: U. S. Bureau of Standards Master Scale Depot, 5800 West 69th Street, Clearing Station, Chicago, Illinois.

12. AUTOMOTIVE STANDARDS.

Twenty-seven reports submitted by 13 divisions of the standards committee of the Society of Automotive Engineers at the annual meeting of the Society have now been approved by letter ballot of the members according to the Society of Automotive Engineers Journal. These reports include six new specifications, 15 revisions of former standards, and six cancellations of obsolete specifications. Following the revision of specifications for aeronautic propeller hubs and shaft ends, it is now proposed to standardize aeronautic thermometer bulbs and the dimensions for aeronautic instrument cases. Standards for marine propeller hubs and recommended practice for marine shaft couplings and propeller shafts have also been adopted.

13. MEASURING CODES.

Specifications and tolerances for commercial weighing and measuring devices, adopted from time to time by the National Conference on Weights and Measures and recommended to the various states for official promulgation, has been assembled for publication for the

information of business and industry. At the same time the Bureau of Standards has prepared short descriptions of other codes applicable to commercial weighing and measuring devices, and also a general discussion in relation to judging the suitability for use of commercial weighing and measuring equipment.

DISTRIBUTION

14. SIMPLIFICATION IS BENEFICIAL.

A step in the elimination of waste is a reduction in distribution costs, editorially observes the METALCRAFT in discussing the value of simplification and standardization. "The manufacture of commonly used products heretofore distributed from a few important centers" remarks the editorial writer, "is now being scattered by the construction of plants in all the important consumption centers and natural forces are keeping the business in these centers.

"Artificial means no longer direct the business to any fixed point and savings in production and all economies in cost are quickly reflected to the consumer. This, perhaps is more advantageous to the small manufacturer, than to the large, providing of course, that he is willing to benefit by efficient production, through standardization and economies effected in distribution."

15. THE LOUISVILLE SURVEY.

All phases of food distribution in all parts of the country, as well as many distributors of products other than food, were represented at the National Conference which executives of the grocery industry recently held in Louisville, Kentucky. A preliminary report on the food distribution survey emphasized that inefficient methods of retailers are common all over the country, due to want of precise knowledge of what the retailers are doing and the effects of their methods. It is pointed out that a knowledge of what the consumer requires, in what quantities, when, and where, would enable goods to flow faster and more steadily. Detailed information on the Louisville Survey may be obtained from the Domestic Commerce Division of the Department of Commerce.

16. DIVERSITY BY STATES.

A writer in "The Central Station" expresses the opinion that, far from bewailing the fact that producers everywhere are effected by geographical differences in natural resources, by the division of labor, by knowledge of the technique of production, and by the accumulation of capital, we should hail these differences as the father of trade. If every state had as good coal and as much as every other state, what would be the object of trade? If every state had oranges, apples, cattle and wheat, there would be no purpose in any transfer from one state to another. Moreover, men produce differently and have to exchange their products. In the end, however, capital is the reason for the stream of goods in the arteries of trade, when technical knowledge employs it to build its factories and ports.

RESEARCH

17. CERAMIC SOCIETY MEETS.

Last month more than 60 delegates from the Ceramic Society of England inspected the Bureau of Standards' work in the clay products and allied fields. This visit was part of a tour for the British ceramists, arranged by the American Ceramic Society, which included inspections of the leading manufacturing plants and research laboratories in the United States and Canada. The trip through the Bureau gave the visitors a chance to see the

work in progress on clay products, Portland cement, lime and gypsum, stone, and optical glass, as well as related investigations covering the strength and fire resistance of structural materials. American ceramists have learned much from the long-established ceramic industry of England, where for years, some of the world's most famous chinaware has been manufactured.

18. NEW IDEAS FROM RESEARCH.

Our present prosperity has resulted more largely from a flow of new ideas than from a flow of money, writes Floyd W. Parsons, in "The Advertising and Selling Magazine." His article is entitled "Everybody's Business." Mr. Parsons expresses the opinion that "never before were discovery and invention carried on with such activity" and then proceeds to cite illustrations of new ideas that have been adopted by industry. In drawing up his conclusions in the article, Mr. Parsons points out that the price of business progress today is scientific research.

19. STUDIES LUBRICANTS.

Important differences have been found in the fundamental mechanical action of lubricants, depending upon the thickness of the oil film which can be maintained between the shaft and the bearing or other mechanical parts, according to M. D. Hersey, in charge of the work on friction and lubrication at the Bureau of Standards.

"The primary object of using a lubricant is to keep the bearing surfaces apart and the thickness of the film is therefore a matter of considerable interest" states Mr. Hersey. "Thick film lubrication is the most desirable and efficient type, but can be maintained only when the bearing surfaces are so designed as to permit the formation of a wedge shaped film. This condition is realized in high-speed journal bearings and in Kingsbury thrust bearings. The performance of such bearings depends primarily on the viscosity of the lubricant.

"When the surfaces are parallel or the speeds very low, and the loads per unit area very high, only extremely thin films can be maintained. The friction is greater for such films and depends upon a property known as oiliness. In view of the importance of viscosity and oiliness, the Bureau of Standards is engaged in developing special methods for measuring these properties."

BUILDING AND HOUSING

James S. Taylor

Address all inquiries on matters pertaining to Building and Housing to James S. Taylor, Division of Building and Housing, Bureau of Standards, Washington, D. C.

20. NEW CHAIRMAN BUILDING CODE COMMITTEE.

Dr. William K. Hatt, Professor of Civil Engineering and Director of the Laboratory for Testing Materials, Purdue University, has been appointed by the Secretary of Commerce, as Chairman of the Department of Commerce Building Code Committee. Dr. Hatt has a long and distinguished record as an educator and engineer. His public service includes such positions as State Engineer, Indiana State Conservation Department; Director of the Advisory Board of Highway Research, National Research Council; and Chief Engineer, Indiana Flood Commission. He is a past president and Turner Medallist of the American Concrete Institute and holds the Fuertes Medal from Cornell University. Dr. Hatt has served as a member of the Department of Commerce Building Code Committee for the past eight years. He succeeds the late Ira H. Woolson.

21. MORE UNIFORM BUILDING CODE REQUIREMENTS.

Returns from inquiries to building inspectors and other local officials have developed the information that more than two hundred cities and towns have utilized the recommendations of the Department of Commerce Building Code Committee in whole or in part. This represents approximately one quarter of all the building codes in effect. Such codes do not ordinarily undergo major revisions at intervals of less than five years on the average and the introduction of the Committee's recommendations is necessarily affected by this condition. The growing acceptance of the recommendations, however, demonstrates that variations in building code requirements throughout the country are being steadily reduced.

UTILIZATION OF WASTE

22. WASTES \$6,000,000 A DAY.

American business is spending \$12,000,000 a day for clerical assistance, which W. H. Leffingwell, President of W. H. Leffingwell Incorporated, of New York, believes is 50 per cent too much, because of poor office management. Mr. Leffingwell, author of "Office Management Principles and Practice," and other books and articles, has written an article in the May number of The Magazine of Business, under the heading of "A Neglected Business Function That Wastes \$6,000,000 A Day."

In his article Mr. Leffingwell said that "The need for specially trained and highly competent office managers, unfortunately, is increasing far more rapidly than such men are being educated and trained." Referring to present office efficiency, he said, "There are now certainly more than 3,000,000 office workers in the country, and experience shows that few offices are 60 per cent efficient. The average annual salary of a clerk is not less than \$1,200 and this means - for 3,000,000 people, a low figure be it remembered - an annual payroll of \$3,600,000,000, which works out as a daily expenditure of \$12,000,000.

"With 50 per cent efficiency, this denotes a daily wastage of no less than \$6,000,000. If but one-half of this sum could be recovered, it would mean a daily saving of \$3,000,000 - an amount that should convince any operating official that it was highly worth while to put his minor office problems in competent and authoritative hands."

ELIMINATION OF WASTE

23. WHAT IS WASTE?

A recent issue of the Monthly Bulletin of the Knoepfel Industrial Counsel, Cleveland, Ohio was devoted to a discussion of waste elimination. Under the heading, "What Is Waste?" C. E. Knoepfel, had the following to say. "A tendency to more serious thinking on the subject of waste elimination is developing a better basis for real action along this line in industry. Salvaging is only a minor part of real waste elimination.

"We need to give more thought to 'not wasting,' as Mr. Ford says, than to reclaiming what is wasted. We waste materials, to be sure, but let me emphasize that it is we who do the wasting, for materials cannot waste themselves; it is the human that causes the waste. The human thinks - materials and machines do not. Waste is due to wrong types of thinking by all who cause it, management and labor and capital alike. By wrong types, I mean thinking that is careless, pessimistic, dishonest, unhealthy, untrained, misdirected and generally negative. I feel that in true waste elimination through man-power development, attention must be given to the fact that because thinking is the basis of everything that we are or do or say, it is that quality in man which must be studied and then properly considered.

"When industry takes this view of waste elimination, it will save billions (not millions) of dollars yearly."

24. ELIMINATES WASTE.

How the Westinghouse Company developed an effective system for eliminating waste, is told in the magazine "Salvage" by J. P. L. McGivern, Superintendent Material Conservation Work Department of the Westinghouse Electrical and Manufacturing Company. He emphasizes the point, in his article, that to salvage legitimate scrap is not difficult, but the prevention of waste that annually goes to the salvage department can only be accomplished through the sincere cooperation of the entire working force.

"Many problems of today relative to material conservation and waste elimination are the result of indifferent extravagance in the past," points out Mr. McGivern, adding, "however, the industries are thoroughly awake to the financial reward for corralling the many little sources of waste, where lies the greatest difficulty, as the larger sources are soon discovered and corrected."

After touching on some of the major items in cost reduction, Mr. McGivern concludes his article by saying "naturally, there are many small savings made daily, which, alone, sometimes have little appreciative value - but which, when taken collectively, represent an annual saving of thousands of dollars.

25. APPENDIX.

The summarized results of the survey of the Simplified Invoice League will be published in the next issued of the Commercial Standards Monthly. All those who contributed reports will receive a copy including detailed results of completed survey. Others wishing a copy will be sent one upon request.

Simplified Invoice League - Reports received from April 25th to May 25th, 1929.

Name of Company	Period	Invoices Checked	Number on Simplified Form	Per Cent of Adherence
Union Pacific System	-	-	-	33.60
North and Judd Mfg. Company, New Britain, Conn.	9 days	297	51	17.17
C. S. Mersick Company, New Haven, Connecticut	-	-	-	10.00*
Indiana Territory Illuminating Oil Company, Tulsa Oklahoma	18 days	2,823	-	8.60
Morton Manufacturing Company, Bristol, Connecticut	10 days	100	8	8.00
Bay Company, Bridgeport, Connecticut	10 days	154	10	6.49

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26. NEW PUBLICATIONS OF THE BUREAU OF STANDARDS.

Send orders for publications under this heading with remittance only to the Superintendent of Documents, Government Printing Office, Washington, D. C.

Bureau of Standards Journal of Research. - Volume 1 (RP Nos. 1 to 36), bound in cloth, \$2.75 (foreign \$3.50).

Bureau of Standards Journal of Research, Vol. 2. No. 5, May, 1929 - by subscription only \$2.75 per year (United States and its possessions, Canada, Cuba, Mexico, Newfoundland, and Republic of Panama) other countries, \$3.50.

Research Papers (reprints from Journal); - RP60. Continuous spectrum X rays from thin targets; W. W. Nicholas; price 10 cents. RP61. A multiple-strand test for yarns; C. W. Schoffstall and H. A. Hamm; price 10 cents. RP62. Thermal expansion of tantalum; P. Hidnert; price 5 cents. RP63. Soundproofing of airplane cabins; V. L. Chrisler and W. F. Snyder; price 5 cents. RP64. Prism refractometry and certain goniometrical requirements for precision; L. W. Tilton; price 1 cents. RP-65. A new determination of the melting point of palladium; C. O. Fairchild, W. H. Hoover, and M. F. Peters; price 10 cents. RP66. A new seismometer equipped for electromagnetic damping and electromagnetic and optical magnification (theory, general design, and preliminary results); F. Wenner; price 15 cents.

Technologic Papers of the Bureau of Standards, Volume 22, (Nos. 353 to 370) bound in cloth, \$3.00.

Simplified Practice Recommendation R95-28 Skid platforms. Price 5 cents.

Commercial Standard Cs4-29 Staple porcelain (all-clay) plumbing fixtures. Price 10 cents.

Miscellaneous Publications: M93 Visitors' manual of the National Bureau of Standards (A brief account of its history functions, and laboratory facilities; H. G. Boutell; free on application to the Bureau. M94 Scientific and technical positions in the National Bureau of Standards, W. C. Fewell; free on application to the Bureau.

United States Government Master Specifications (promulgated by the Federal Specifications Board); No. 39c, Tubing, rubber; price 5 cents. No. 48c Hose, water and wash deck; price 5 cents. No. 50b Hose suction, water (smooth bore) price 5 cents. No. 63c, Hose, oil suction and discharge; price 5 cents. No. 111b; Packings and gaskets, rubber (molded, sheet, and strip); price 5 cents. No. 497a Wool bunting; price 5 cents. No. 618; lamps, electric incandescent, miniature, tungsten filament; price, 5 cents. 1930 supplement to No. 618; price 5 cents.

Technical News Bulletin No. 146, June, 1929 -- by subscription only, 25 cents per year (foreign, 40 cents).

Commercial Standards Monthly No. 51--18.

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